

**Classifications**

EN ISO 17632-A	EN ISO 17632-B	AWS A5.20 / SFA-5.20
T 42 4 B M21 1 H5	T 49 6 T5-1M21A-H5	E71T-5M JH4
T 42 4 B C1 1 H5	T 49 6 T5-1C1A-H5	E71T-5C JH4

**Characteristics and typical fields of application**

Seamless basic flux-cored wire for single or multilayer welding of carbon, carbon-manganese steels and similar steels, including fine grain steels with Argon-CO<sub>2</sub> shielding gas or pure CO<sub>2</sub>. Main features: excellent weldability in flat and horizontal position, smooth and bright bead, very low spatter losses, easy to remove slag and exceptional mechanical properties even at low temperatures.

**Base materials**

S235JR-S355JR, S235JO-S355JO, S235J2-S355J2, S275N-S355N, S275M-S355M, S275NL-S355NL, S275ML-S355ML, P235GH-P355GH, P275NL1-P355NL1, P275NL2-P355NL2, P215NL, P265NL, P355N, P285NH-P355NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L360NB, L245MB-L360MB, GE200-GE240

Ship building steels: A, B, D, E, A 32-E 36

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1, LF2; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A; A 633 Gr. A, C, D; A 662 Gr. A, B, C; A 707 Gr. L1, L3; A 711 Gr. 1013; A 841 Gr. A, B, C; API 5 L Gr. B, X42, X52, X56

**Typical analysis**

	Gas	C	Si	Mn
wt.-%	M21	0.07	0.40	1.40
wt.-%	C1	0.06	0.30	1.30

**Mechanical properties of all-weld metal - typical values (min. values)**

Condition	Yield strength R <sub>e</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact energy ISO-V KV J	
	MPa	MPa	%	-40°C	-60°C
u	450 (≥ 420)	550 (500-640)	28 (≥ 20)	140 (≥ 47)	100
u1	430 (≥ 420)	530 (500-640)	30 (≥ 20)	90 (≥ 47)	80

u untreated, as welded – shielding gas M21

u1 untreated, as welded – shielding gas C1

**Operating data**

	<b>Polarity</b>	DC+	<b>Dimension mm</b>
	<b>Shielding gas (EN ISO 14175)</b>	M21 – M35, C1	1.2
			1.6

Welding with conventional or pulsed power sources using DC+

**Approvals**

TÜV (06202), CE